

Mineral Industry Surveys

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TUNGSTEN IN FEBRUARY 2004

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder produced from metal powder, was 38% lower during January through February 2004 than net production during the same period in 2003, according to the U.S. Geological Survey.

Total U.S. reported consumption of ferrotungsten, tungsten metal powder, tungsten carbide powder, tungsten scrap, and other tungsten materials in January through February 2004 was approximately equal to that consumed during the same period in 2003. These materials were used to make alloys, cemented carbides, mill products, catalysts, and pigments.

Data for U.S. imports and exports for February 2004 will be published in a subsequent issue.

Reminder

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Update

Prices for tungsten ore concentrates, in dollars per metric ton unit from Metal Bulletin, are listed below. Prices in dollars per short ton unit were converted from metric ton unit prices and rounded to the nearest dollar. These prices represent combined prices for wolframite and scheelite ore concentrates with a minimum tungsten trioxide (WO₃) content of 65%. The prices for March 1-31, 2004, are as follows:

Low—\$43/metric ton unit WO₃ (\$39/short ton unit WO₃)
High—\$52/metric ton unit WO₃ (\$47/short ton unit WO₃)

TABLE 1
U.S. SALIENT TUNGSTEN STATISTICS¹

(Metric tons, tungsten content)

Period	Concentrate				Intermediate products				
	Reported consumption	Imports for consumption	Stocks, end of period		Reported scrap consumption	Net production ⁴	Reported consumption ⁵	Stocks, end of period	
			Industry ²	U.S. Government ³				Industry ⁶	U.S. Government ³
2003:									
February	W	253	W	29,800	403	965	750	718	927
March	W	474	W	29,800	476	1,120	777	779	913
April	W	377	W	29,800	399	1,110	863	785	894
May	W	679	W	29,600	312	1,120	904	746	808
June	W	365	W	29,600	293	575	719	722	784
July	W	463	W	29,600	301	523	735	655	759
August	W	427	W	29,600	329	516	700	637	759
September	W	530	W	29,500	253	567	720	661	767
October	W	223	W	29,500	380	548	707	626	767
November	W	244	W	29,400	377 ^r	488 ^r	642 ^r	616 ^r	767
December	W	402	W	29,400	331 ^r	522 ^r	666 ^r	565 ^r	765
January-December	W	4,690	XX	XX	4,220 ^r	9,060 ^r	8,970 ^r	XX	XX
2004:									
January	W	328	W	28,900	391 ^r	602 ^r	752 ^r	594 ^r	757
February	W	NA	W	28,800	293	626	761	563	743
Total	W	NA	XX	XX	684	1,230	1,510	XX	XX

^rRevised. NA Not available. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Reported by consumers.

³Data from Defense National Stockpile Center. Includes material committed for sale pending shipment.

⁴Net production of tungsten metal powder and tungsten carbide powder.

⁵Includes estimates and scrap.

⁶Data for tungsten metal powder and tungsten carbide powder reported by producers.

TABLE 2
U.S. PRODUCTION, CONSUMPTION, AND STOCKS OF
AMMONIUM PARATUNGSTATE, BY MONTH¹

(Metric tons, tungsten content)

Period	Production	Consumption	Stocks, end of period ²
2003:			
February	W	750	61
March	W	851	73
April	W	W	44
May	W	724	38
June	W	710	59
July	W	W	45
August	W	W	49
September	W	839	42
October	W	846	36
November	W	769 ^r	W
December	W	W	35
January-December ³	W	6,260 ^r	XX
2004:			
January	W	813 ^r	W
February	W	672	35
Total	W	1,490	XX

^rRevised. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Producers and consumers.

³Does not include withheld data.

TABLE 3
U.S. PRODUCTION AND STOCKS OF TUNGSTEN PRODUCTS¹

(Metric tons, tungsten content)

Product ³	Net production ²				Stocks at end of period		
	2004				2004		
	2003 ^f	January ^f	February	Year to date	2003 ^f	January ^f	February
Metal powder	5,300	250	271	521	373	401	378
Tungsten carbide powder (made from metal powder)	3,760	352	355	707	193	194	184
Total	9,060	602	626	1,230	566	594	563

^fRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Gross production less quantity used to make other products in table.

³Data for cast and crystalline tungsten carbide powder and tungsten chemicals are withheld to avoid disclosing company proprietary data; not included in "Total."

TABLE 4
U.S. REPORTED CONSUMPTION OF TUNGSTEN, BY END USE^{1, 2, 3}

(Metric tons, tungsten content)

End use	2004		
	January	February	Year to date
Steels	20	20	40
Superalloys	26 ^f	22	49
Other alloys (excludes steels and superalloys) ⁴	W	W	W
Cemented carbides ⁵	407 ^f	403	810
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	299 ^f	316	614
Total	752 ^f	761	1,510

^fRevised. W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Does not include materials used in making primary tungsten products.

³Includes estimates.

⁴Includes welding and hard-facing rods and materials, wear- and corrosion-resistant alloys, and nonferrous alloys.

⁵Includes diamond tool matrices, cemented and sintered carbides, and cast carbide dies or parts.

TABLE 5
U.S. REPORTED CONSUMPTION AND CONSUMER STOCKS OF TUNGSTEN MATERIALS¹

(Metric tons, tungsten content)

Period	Ferro- tungsten	Tungsten metal powder	Tungsten carbide powder	Tungsten scrap	Other tungsten materials ²	Total
Consumption:						
2003:						
February	23	W	395	W	6	750
March	21	W	396	W	6	777
April	23	W	404	W	6	863
May	22	W	404	W	6	904
June	20	W	401	W	6	719
July	20	W	393	W	6	735
August	22	W	391	W	6	700
September	23	W	406	W	6	720
October	21	W	389	W	6	707
November	20	W	391	W	6	642 ^r
December	20	W	407	W	6	666 ^r
January-December	257	W	4,780	W	72	8,970 ^r
2004:						
January	20	W	409 ^r	W	6	752 ^r
February	20	W	407	W	6	761
Total	40	W	816	W	12	1,510
Stocks:						
2003:						
February	20	22	292	20	9	362
March	20	20	285	27	9	361
April	15	24	288	22	9	358
May	29	26	292	21	9	376
June	23	24	304	21	9	381
July	21	22	294	27	9	373
August	28	23	296	25	9	381
September	25	20	284	19	9	357
October	21	21	293	15	9	359
November	29	21	300	22	9	380
December	27	23	295	18	9	372
2004:						
January	26	23	296 ^r	19 ^r	9	373 ^r
February	25	22	291	17	9	363

^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Total."

¹Includes estimates.

²Includes tungsten chemicals.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY¹

(Metric tons, tungsten content)

Period and country of origin	Ores and concen- trates	Ammonium tungstates	Ferro- tungsten	Metal powder	Tungsten carbide powder	Other ²	Total
2003	4,690	2,640	377	1,090	1,370	1,020	11,200
2004:							
January:							
Austria	--	--	--	--	(3)	3	3
Bolivia	36	--	--	--	--	--	36
Canada	108	--	--	--	35	--	143
China	--	369	31	55	76	49	580
Czech Republic	--	--	--	--	1	(3)	1
France	--	--	--	--	(3)	(3)	(3)
Germany	--	17	--	29	(3)	7	53
Hong Kong	--	--	--	--	--	(3)	(3)
Hungary	--	--	--	--	--	1	1
India	--	--	--	--	--	(3)	(3)
Israel	--	--	--	--	27	(3)	27
Japan	--	--	--	4	--	1	6
Kenya	26	--	--	--	--	--	26
Korea, Republic of	--	--	--	(3)	5	--	5
Mexico	--	--	--	(3)	--	--	(3)
Portugal	68	--	--	--	--	--	68
Russia	--	--	--	--	--	1	1
Rwanda	79	--	--	--	--	--	79
Thailand	10	--	--	--	--	--	10
Other	--	--	--	--	--	(3)	(3)
Total	328	387	31	88	144	64	1,040

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes other unwrought tungsten, wrought tungsten, calcium and other tungstates, tungsten oxides, tungsten chlorides, other tungsten compounds, ash and residues containing mainly tungsten, and other mixtures of inorganic compounds containing tungsten. Tungsten content estimated in part.

³Less than 1/2 unit.

Note: Imports of waste and scrap in January 2004 totaled 15 metric tons, tungsten content.

Source: U.S. Census Bureau.

TABLE 7
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY¹

(Metric tons, tungsten content)

Period and country of destination	Ores and concentrates ²	Ammonium tungstates	Metal powder ²	Tungsten carbide powder	Other ³	Total
2003	20	99	1,130	1,700	1,440	4,390
2004:						
January:						
Australia	--	--	(4)	(4)	(4)	(4)
Belgium	--	--	--	(4)	(4)	(4)
Brazil	--	--	(4)	--	4	4
Canada	--	--	3	13	7	22
China	--	--	(4)	1	(4)	1
Columbia	--	--	--	--	1	1
Czech Republic	--	--	3	--	(4)	4
France	(4)	--	1	13	7	21
Germany	--	18	19	33	1	70
Hong Kong	--	--	1	--	(4)	2
Hungary	--	--	--	--	15	15
India	--	--	--	--	1	1
Ireland	--	--	--	1	--	1
Israel	--	--	--	--	1	1
Italy	--	--	3	1	(4)	4
Japan	--	--	2	3	6	11
Korea, Republic of	--	--	1	2	(4)	3
Luxembourg	--	--	(4)	2	--	2
Mexico	--	--	(4)	--	13	13
Netherlands	(4)	--	1	(4)	5	7
Peru	--	--	(4)	(4)	--	(4)
Philippines	--	--	--	(4)	--	(4)
Singapore	--	--	1	(4)	(4)	1
Spain	--	--	(4)	--	2	2
Sweden	--	--	(4)	--	(4)	(4)
Switzerland	--	--	7	3	(4)	9
Taiwan	--	--	2	(4)	19	21
Turkey	--	--	(4)	--	(4)	(4)
United Arab Emirates	--	--	--	--	(4)	(4)
United Kingdom	--	--	1	12	5	19
Other	--	--	--	--	(4)	(4)
Total	(4)	18	45	84	89	237

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Tungsten content estimated from reported gross weight.

³Includes unwrought tungsten, including bars and rods obtained simply by sintering, wrought tungsten, ferrotungsten, and other tungstates. Tungsten content estimated in part.

⁴Less than 1/2 unit.

Note: Estimated exports of waste and scrap in January 2004 totaled 132 metric tons, tungsten content.

Source: U.S. Census Bureau.